Review of « Hervé Lieutard (2004), Phonologie et morphologie du parler occitan de Graulhet (Tarn). Structure, contenu et rôle de la syllabe », CEO, Université Paul Valéry – Montpellier III

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This book analyses the phonology and morphology of a Western Lengadocian dialect and is based on the author's PhD thesis. It contains six chapters, with the first and the last one serving as introduction and conclusion to the work, respectively. It also has an index of the word forms, an index of the tables, a references section, three appendices which contain the conjugation paradigm of 34 Occitan verbs, an example of the data in the corpus in phonetic transcription, as well as literary texts written in the Graulhet dialect, and an explanation of the phonetic symbols and abbreviations used. In this review, I won't be able to go into details for the analysis of every single one of the many phenomena studied, although much interesting discussion would be possible, but I will try to outline the main tenets of the book and in particular the basics of the theory that served as the framework for the analyses.

The theory

The scope of the book is not so much to present every detail of the phonology and morphology of the Occitan dialect as spoken in the town of Graulhet, but rather to show that the dialectal forms are variations of abstract forms common to all Occitan dialects. The author chooses a formal approach by embedding his analyses in the syllabic phonology framework as proposed by Sauzet 1993 and elsewhere. This framework is a branch of Government Phonology, in the sense that the notion of 'government' as known from the X-bar approach to syntax is fundamental to the theory. The syllable is seen as the consequence of the application of X-bar to phonology, where the three constituents of the 'canonical' syllable follow from a syllabification algorithm that applies to the segmental material in the underlying form. Its exact shape (CV, CCVC etc) however may be subject to parameterisation. As for the shape of the underlying form, Lieutard assumes that the phonological material – the segments – are not in a linear order, and only become linearised when the syllabification algorithm applies to them.

The use of X-bar in phonology is thought to contribute to a uniform analysis of language across all linguistic components. Although it is not explicitly stated, by assuming this the author subscribes to the theory of Universal Grammar. Differences between dialects or languages are then a consequence of parameter setting at some abstract level of language. These parameters would account for e.g. whether certain segments are allowed in coda position, while others are not, or what quality the epenthetic vowel of a language has.

The data on which the analyses are founded were gathered by the author himself from speakers of the Graulhet dialect. Spontaneous speech data as well as the responses to half-guided questionnaires constitute the main body of the corpus, but the author also takes into account some early-20th century literary texts of a Graulhet poet, as well as 13th century local charters in order to gain some diachronic insights.

The analyses

While the first chapter gives us some information on the gathering of the Graulhet data and serves as an introduction to the theoretical framework as described above, the main analysis starts with chapter two which is concerned with phenomena of the syllable head, i.e. phenomena which involve vowels, since only vowels can be syllabic in Occitan. Here, the most interesting question treated is why the Modern Occitan vowel system is asymmetrical ([i e ɛ y a ɔ u]) with four front vowels vs only two back vowels, despite its ancestor, the Ancient Occitan vowel system, being symmetrical ([i e ɛ a ɔ o u]). In relation to this, the author strives for an explanation of the unstressed reduced vowel system ([i e y a u]), where stressed [e] and [ɛ] merge into unstressed [e] as well as stressed [ɔ] and [u] into unstressed [u]. An additional phenomenon to be analysed involves the rounding of [a] to [ɔ] when in final unstressed position, one of the most characteristic features of Occitan phonology.

(1)   The [e] - [ɛ] alternation (from Lieutard's table 3, p. 25)
            stressed position: ['lɛβi] "lèvi" ("I lift")
            unstressed position: [le'βan] "levam" ("we lift")

            The [u] - [ɔ] alternation (from Lieutard's table 3, p. 25)
            stressed position: ['bɔli] "vòli" ("I want")
            unstressed position: [bu'lɛn] "volèm" ("we want")

(2)   The rounding of unstressed /a/ (from Lieutard's table 4, p. 26)
            stressed position: [par'lan] "parlam" ("we speak")
            post-stress position: ['parlɔ]"parla" ("he/she speaks")

As stress-related phenomena require an account of the way stress is assigned in the language, the opening subpart of the chapter is devoted to this question. The author analyses the Occitan stress pattern in terms of the metrical model of Halle & Vergnaud 1987, but also asserts that the outcome of the stress assignment has to be interpreted within the X-bar model. He then introduces the basic claim of his account of the vowel system, namely that Occitan [u] is better to be conceived of as [ʊ], i.e. as a high lax vowel, and points out the necessity of a feature [ATR] to account for this peculiarity. However, this claim is not backed by phonetic analyses in the book. The purported lax realisation of the high back vowel of Graulhet Occitan has consequences for the following analysis which is carried out using Government Phonology's version of Element Theory as presented by Kaye, Lowenstamm & Vergnaud 1985 and adapted to X-bar theory by Sauzet 1992, 1993.

I will not dwell very much on the details of the elemental analysis of the vowel system, as this would require an introduction to the theory that would be too long for the purposes of a review. However, I would like to point out that the analysis would have profited from taking into account more recent results on Element Theory (e.g. Kaye, Lowenstamm & Vergnaud 1990 modifying the charm assignment, Harris and Lindsey 1995, Schane's results from 1984 onwards, to name a few), since the 1985 version contains some flaws, such as unary features (elements) which are defined by matrices of (traditional) binary features.

The third chapter is devoted to the analysis of phenomena occurring in the syllable onset. The author introduces the two key concepts that underly the analyses in this chapter: the sonority scale (after Clements 1990) that allows segments to be classified into strong and weak segments, where sonorous segments are strong when in the syllable head and non-sonorous

segments weak, but where there is the opposite distribution in the syllable onset, with strong segments being the least sonorous ones. The second device is the assumption of the Maximal Onset Principle (Clements & Keyser 1981) which says that onsets should be formed before codas are, wherever possible. This principle is associated to the idea that the onset is a strong position within the syllable structure, not only because of the many strengthening phenomena that have been witnessed in this position, but because of the onset being an adjunction in terms of X-bar vocabulary. The author then discusses the fricativisation of the voiced stops [b d g] in intervocalic position as a lenition process, and spends some time on the question of hiatus resolution by elision of unstressed vowels or by epenthesis of the consonants [z] or [n].

The next part of the chapter considers complex onsets, which consist in Graulhet Occitan of obstruent + liquid clusters. Lieutard conceives of them as 'degenerated syllables' where the liquid (potentially syllabic in some languages, but not in Occitan) is the head and the obstruent the onset. This 'degenerated syllable' is then regularly incorporated into the following vowel-initial syllable as a repair strategy. In Graulhet Occitan there is a phenomenon of metathesis, where the [r] of the complex onset can move into the coda position of the same or a precedent syllable or to the (obstruental) onset of another syllable following or preceding, forming again a complex onset, under various stress conditions. This phenomenon is viewed essentially as a tendency of the language to establish 'canonical' syllables, i.e. those that have the full rime constituent (head + coda), or to prevent sound changes that would weaken other consonants in the word.

(3)   [r] metathesis (from Lieutard's table 16, and text p. 84):
          general Lengadocian [kriˈða] "cridar" ("to shout") → Graulhet [kirˈda]
          gen. Leng. [dyˈbri] "dubrir" ("to open") → Graulhet [dyrˈbi]
          gen. Leng. [ˈkaβrɔ] "cabra" ("goat") → Graulhet [ˈkraβɔ]

A few paragraphs follow on the need for a final underlying complex onset to be followed by an epenthetic vowel in order to be realised, as a consequence of the fact that liquids cannot be syllabic in Occitan, like in the word [ˈbatre] "batre" ("to beat") (Lieutard's (48a), p. 86), where the stem is /bat/, and /r/ the infinitival marker followed by the epenthetic vowel. Then the author turns to several strategies the language allegedly employed in order to prevent lenition in sounds. The first one is the epenthesis of the stop [d] in the historical word-internal [nr] and [lr] clusters giving today's [ndr] and [ldr] sequences. Here the aim of the 'prevention strategy' was to avoid assimilation of the sonorants to one another. Lieutard finds another strategy to prevent a menacing sound change in a devoicing phenomenon that occurs in voiced stop + [l] clusters which follow a stressed vowel. This devoicing process can even lead to the gemination of the former voiced and now devoiced stop. The sound change to be prevented in this case would be the fricativisation and subsequent vocalisation of the voiced stop, as happened occasionally in some word forms.

(4)   Stop devoicing in stop + [l] clusters (from Lieutard's (51a) and text, pp. 90-91)
          [ˈrɛkᵏlɔ] "règla" ("rule") cf. [reˈgla] "reglar" ("to regulate")
          Stop weakening in the toponym "La Rèola" [laˈrɛwlɔ] < lat. illa regula

The last part of chapter three tackles the issue of rising diphthongs and the glides. This issue is discussed in this chapter because the first member of the rising diphthong, the glide, is potentially an onset. Lieutard distinguishes between so-called 'true' and 'false' diphthongs, where the former is a complex syllable head and the second a sequence of a glide in the onset and a vowel in the head of the syllable. This distinction derives from the fact that in some

cases, an unstressed vowel is elided before the diphthong as a hiatus resolution strategy, while in other cases it is not, despite the diphthongs being phonetically the same. The author corroborates his analysis by the observation that the counterparts of the Eastern Lengadocian diphthong [ɥɛ] are in the Western Lengadocian dialect of Graulhet the monophthong [ɛ] as well as the sequence [bɛ].

(5)   E. Leng. [ɥɛ] and Graulhet [ɛ]/[bɛ] (from Lieutard's table 21, p. 98)
        E. Leng. ['ɥɛl] "uèlh" ("eye") – Graulhet ['ɛl]
        E. Leng. ['ɥɛjt] "uèit" ("eight") – Graulhet ['bɛjt]

There are some final paragraphs in chapter three on the fact that Occitan doesn't tolerate complex onsets of the obstruent + liquid + glide shape, unless the glide is part of a 'true' diphthong and thus structurally speaking not in the onset.

Chapter four is an account of phenomena pertaining to the coda position and what the author calls the 'extra-syllabic position'. He assumes that, since only sonorant consonants as well as [s] are observed in word-internal codas, they are the only ones admitted in the dialect's coda position. The dialect's choice is in turn due to parameter setting, backed again by the Principle of Sonority Dispersion from Clements 1990. The other obstruents of the language are thus 'illegal' in the coda, and whenever they appear in final codas, they consequentially are 'extra-syllabic'. As a lot of phenomena relate to the final segment of the word, I can only mention a few of them. For word-final sonorants (liquids and nasals), there is a neutralisation process of /m/ and /ɲ/ to [n], /ʎ/ and /l/ to [l], while /n/ and /r/ delete ((6) from Lieutard's table 28, pp. 118-119).

(6)   final /m/ : ['fyn] "fum" ("smoke") cf. [fy'ma] "fumar" ("to smoke")
        final /ɲ/ : ['ban] "banh" ("bath") cf. [ba'ɲa] "banhar" ("to bath")
        final /ʎ/ : [tra'βal] "trabalh" ("work") cf. [traβa'ʎa] "trabalhar" ("to work")
        final /n/ : [ka'mi] "camin" ("path") cf. [kami'na] "caminar" ("to walk")
        final /r/ : [pry'mjɛ] "primièr" ("first" (adj.masc.)) cf. [pry'mjɛjrɔ] "primièira" ("first" (adj.fem.))

Following Kaye's 1990 idea of 'Coda Licensing', Lieutard develops the concept of a default extrasyllabic unary place feature that is subject to parameter setting for every dialect. In Graulhet Occitan this feature would be [coronal]. Sonorants which are 'legitimate' coda segments need to assimilate to this feature, hence the neutralisation of /m ɲ ʎ/. When the sonorant is unable to assimilate to the extrasyllabic place feature because it is already coronal and thus the assimilation process would be vacuous, it has to delete, since the assimilation must take place. Feature linking or merging of two identical features is excluded, unfortunately without any explanation. For /l/ which is realised as such, the author assumes that it is underlyingly velar, despite the phonetic facts indicating that it is coronal not only word-finally, but also in onset and intervocalic position.

Next follows a short section on word-final glides. Lieutard supposes them to be in the coda position rather than part of a complex nucleus, because they're normally not followed by any other segment, which could be the case if the coda was empty.

The second part of chapter four studies the word-final so-called 'extrametrical' segments (where 'extrametrical' is synonym to 'extrasyllabic') [p t k t͡s], which can appear after a 'legitimate' sonorant coda segment or directly after the vowel nucleus. Note that an

'extrasyllabic' position is assumed for Occitan only word-finally, for the rest of the sound chain is seen as being composed of 'canonical' (CVC) syllables. In order to be incorporated into the word, an 'extrasyllabic' consonant has two possibilities: 1) It can move into the coda (as a trace of itself, in the syntactic sense), when the coda is empty, i.e. no sonorant consonant precedes it, or 2) It is adjoined an empty nucleus and forms an extra syllable with it. The incorporation in either way of the 'extrametrical' segment is necessary, as it contributes to the weight-sensitive assignment of stress in Occitan. The most interesting process affecting the word-final obstruents in Occitan is their complete assimilation to the following onset, which results in a kind of liaison geminates. Word-final sonorant segments only assimilate completely to the next onset if this onset is a sonorant as well. There are also sonorant geminates word-internally in Graulhet Occitan as well as the stop geminate [tt]. The members of the geminates are seen to be linked to each other in a way that allows the first member to be in coda position, even if it is an obstruent. In a final subpart of this chapter, Lieutard turns to the phenomenon of final devoicing of underlyingly voiced obstruents, as known from Catalan or German. He explains it in the following way: As word-final obstruents are abstractly onsets of a syllable with an empty head, they tend to be 'perfect' onsets in terms of sonority, i.e. the least sonorous possible.

Chapter five treats morphologically conditioned phenomena in the Graulhet Occitan's phonology. The first part of this chapter is devoted to the study of /s/ as a morpheme (2nd pers. sg. or plural marker on nouns and adjectives). As a morpheme, final /s/ does not contribute to syllabic weight when stress is assigned, while lexical /s/ does. When the final (plural marker) [s] precedes either one of the labial or velar stops, they assimilate in place of articulation to it, while the coronal stop stays as such: i.e. there is neutralisation of the final stop-[s] cluster ((7) from Lieutard's table 35, p.159).

(7)   final /p+s/ : [esˈklɔts] "esclòps" ("clogs") cf. sg. [esˈklɔp] "esclòp"
           final /k+s/ : [aˈmits] "amics" ("friends") cf. sg. [aˈmik] "amic"

Another phenomenon related to the plural marker /s/ is its realisation [j] when preceding a consonant (other than [p t k]) as happens e.g. in plural D+N phrases. Lieutard states that the glide is a default segment taking over the place of the plural marker that had been deleted due to sound change, in order to preserve morphological marking. Now, when either one of the prepositions "sus", "per", "de", "a" and a determiner are contracted in the plural masculine paradigm and they form a phrase with a following noun, the following phenomenon happens:

(8)   preposition [peɾ] "per" ("for") + def. article masc. plur. [lus] "los" ("the")
           contracted = "pels" (the singular contracted form being [pel] "pel" = "per" + "lo")
               before [p t k]   [pes]
               before any other consonant   [pej]
               before a vowel   [pejz]

Lieutard proposes that in the [pejz] "pels" form, the [j] in the coda represents the former coda [l]: before a vowel, the plural marker [z] (for [s] due to intervocalic voicing) being syllabified as an onset, the coda position is vacant. But as [l] had been deleted elsewhere in the contracted plural form, the default segment [j] fills the position here. He then discusses some cases where lexical forms have two variants, one with [z], the other with [j] as e.g. the infinitive [ˈkɔjre] / [ˈkɔze] "còire"/"còser" ("to cook").

The second part of the fifth chapter tackles the question of the phonological status of so-called 'floating' segments, i.e. those consonants that appear in derived forms only, between the stem and the suffix(es) like in the word "òme" ((9) from Lieutard's (113), pp. 179-180).

(9)   underived form : ['ɔme] "òme" ("man")
        derived form with the suffix /as/ "-às" (augmentative) : [ume'nas] "omenàs" ("big man")

The proposal made here is that these consonants are dissociated from the rest of the material in the underlying form and only accessible to suffixes. This is why Lieutard, following Sauzet 1999, calls them 'morpheme specifiers', which in the case of (9) would be the nasal, but theoretically every consonant can fall into this category. An interesting case is the fate of final /nt/ clusters whose complete realisation or not is conditioned by the morphological category of the form they belong to. Masculine adjectives realise final [nt] (feminines would have [-ntɔ] = /nt+a/), while nouns only realise [n] with the [t] appearing only in derivations. Lieutard states that in accordance with the precedent claim, the /t/ of this cluster is a morpheme specifier in the nouns, whereas in the adjectives, we rather have an adjectival theme, because it is always realised (examples in (10), from Lieutard's table 39, p. 182).

(10)   final /nt/ in the adjective: ['lent] "lent" ("slow", masc.)
                                          ['lentɔ] "lenta" ("slow", fem.)
         final /nt/ in the noun :   ['ben] "vent" ("wind")
                                          [ben'ta] "ventar" ("to blow (for the wind)", (derived verb)

With this in mind Lieutard then revisits his analysis of final devoicing. He claims that since there is reduced allomorphy underlyingly – the voiced and the devoiced allophone both being present at the abstract level – the voiced allophone is also a morpheme specifier, because it is selected whenever the stem is adjoined a suffix.

The last analysis in the book is about the so-called 'parasitic' /g/ in the conjugation paradigm of the suffixed and the radical verb classes. This /g/ occurs between the stem and the suffix in most tenses other than the indicative present tense, the future and the conditional. In this sense, it is again a morpheme specifier.

The good and the bad

After having described the analyses in the book and occasionally commented on them, I'd like to come to some broader points now. Let's start with what's positive. The overall writing style of the book is clear and its division reader-friendly. There are a lot of examples for every phenomenon, and one can follow the argumentation lines without any problem.

The data the author gathered himself are very clearly presented. Researchers who will read this book in order to find data in support of a particular phenomenon or for comparison reasons with whatever other language, will find easily what they are looking for. In particular the index of the verb paradigms at the end of the book is a mine of information for people interested in the data. There is also a fairly long extract from the corpus in phonetic transcription, a transcription into Occitan orthography and a translation into French. This allows readers to get an idea of the Graulhet dialect and find some of the phenomena studied

in this book in context. In addition to this, the author provides two texts written at the beginning of the 20th century in Graulhet in their own idiosyncratic orthography based on French spelling customs.

I now turn to some drawbacks of the book which almost all pertain to the formal analysis. The author states at various points of the analyses why he doesn't use the framework proposed by Chomsky & Halle 1968 in that version. If there is a need to justify the decision not to use a mainstream phonological theory, a thesis from the year 2000 or a book from 2004 should refer to Optimality Theory (Prince & Smolensky 1993), not to the Sound Pattern of English.

I find it a bit of a pity that the author didn't spend much time on the explanation of the theory he uses. Even though he didn't develop it himself, only four pages on the theoretical foundations of the book is not enough, given the complexity of Sauzet's 1993 framework. It may be that the rough functioning of the theory can be made clear even in a brief section, but there is usually more to a theory than simple algorithm explaining. The most interesting question in this regard, namely why choose this framework rather than any other of all those around in phonological theory, is not answered in the book at all.

Although the author analyses vowels in terms of Element Theory, i.e. using unary features, for the consonants he continues using binary feature matrices of the SPE shape. Not only does this make the analysis more difficult as vowels and consonants can hardly be related to one another in this way, but the reader is left alone with the question why the author chose this rather curious method. In general, I have the impression that there's a problem with the conception of the segment throughout the book. When analysing weakening or strengthening phenomena in consonants, Lieutard resorts to the device of suppletion: every allophone of a phoneme is as such present in the underlying form and the syllabification algorithm then has to pick out the right one, according to the allophone's position on the sonority scale. This implies that the segments finally are underlyingly discrete in the sense of SPE matrices, despite the use of elements in the section on vowels. I wonder if an account by linking, delinking, deleting or adding single features (as for example in a Feature Geometry framework (Clements & Hume 1995)) or the consequent use of Element Theory would have led to more thorough and somewhat more natural analyses.

In sum, I recommend this book for researchers and advanced students of linguistics who want to find out more about Occitan phonological phenomena. For researchers whose primary interest lies within formal linguistics, it might be interesting to see how a Syllabic Phonology approach has been applied to the Occitan language.

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